

**Phase 1 Preliminary Risk Assessment
Report
For
Proposed Development
At
63-71, High Street, Hampton Hill,
TW12 1NH**



Issue record:

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Date: 19th May 2016

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Date: 12th November 2020



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1. INTRODUCTION

HBPW LLP (HBPW) was instructed by Leigh and Glennie Ltd (the 'Client') to undertake a Phase 1 Preliminary Risk Assessment of a Site known as 63-71 (High Street), Hampton Hill, TW12 1NH.

The primary purpose of the investigation was to obtain information on the environmental setting and potential for contamination and ground gas issues to affect the development. In particular any foreseeable abnormal development costs and associated remediation relating to ground conditions or contamination resulting from previous uses of the Site and its environs are to be evaluated by undertaking a preliminary risk assessment.

The key objectives of this study are to:

- Identify any potentially contaminative current and historical uses of the site, and potential sources of contamination on the site.
- Identify potentially contaminative current and historical uses of adjacent sites that may have resulted in cross boundary migration of contamination onto the site.
- Identify potential risks to human health, groundwater, surface water and ecological targets as a result of any potential sources of contamination beneath the site.
- Provide a recommended scope of intrusive investigation for the site to enable assessment of potential contamination.

This report is based upon archival research including the analysis of historical maps, geological and hydrological data and other relevant Third Party environmental information that HBPW LLP have taken to be correct, and no liability can be accepted for any inaccuracies contained within the Third Party information referenced.

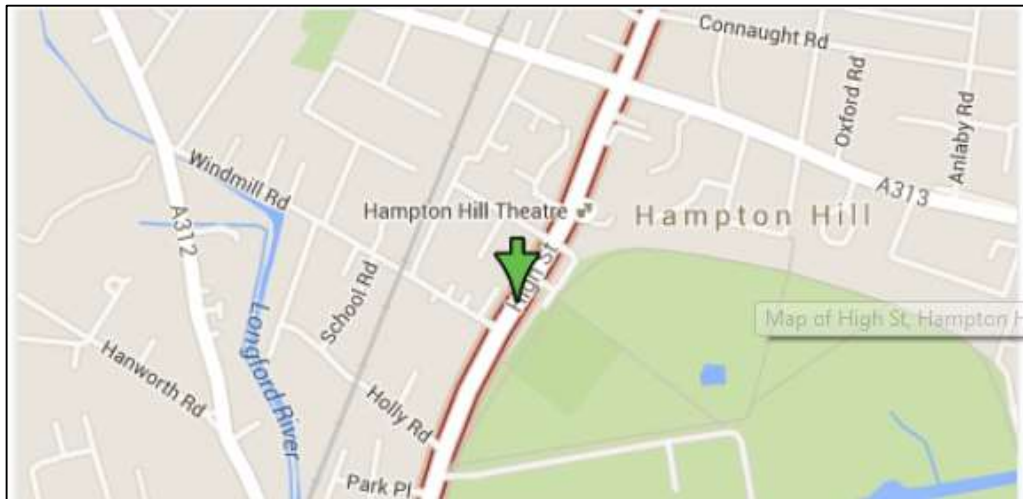
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2. SITE DETAILS AND DESCRIPTION

2.1 Site Details

The Site is located at 63-71 High Street Hampton Hill TW12 1NH. The Site is on the western side of High Street centered at approximately national grid reference TQ 1424 7084.

The Site location is shown below and the context can be seen at Appendix 2 within the Database Report.



Site Location Plan

The Site forms an approximately rectangular parcel of land (68m by 38m) and is currently occupied by 3 buildings. Two office buildings located at the frontage to High Street are joined by an enclosed overhead link walk way at first floor level. Another building, St Clare Studio, is located in the south west quadrant backing onto the access road to the St Clare Business Park.

To the south of the Site are residential terraces. To the north, the land to the rear of the retail/residential frontage is, at time of writing, being developed with a number of 2 storey town houses.

The external areas are predominantly laid to hard standing with a number of semi mature trees. There is a raised fish pond to the south boundary.

There are a number of drainage manholes, some are surface water gulleys which take surface water to a number of soakaway chambers located beneath the car parking areas.

Currently vehicular access to the Site is via the metal powered gates located centrally between the frontage buildings and there is a pedestrian entrance (door) in the rear (west) boundary adjacent to the studio building.

2.2 Proposed Development

The proposed development includes the refurbishment and redevelopment of existing office buildings into residential apartments with associated areas of hard surfacing, car parking and access.

3. ENVIRONMENTAL SETTING

3.1 Introduction

A Landmark historical map dataset and an Envirocheck data report has been obtained for the site (refer to Appendix 1 and 2 respectively) and this information has been reviewed from the perspective of identifying potential sources of contamination, potential receptors that may be impacted by those contamination sources (i.e. the Site), and the potential pathways that may be active allowing the source of contamination to reach the receptor.

3.2 Site History

A historical map review has been undertaken to identify previous land uses for the Site and its environs and the key findings are as follows.

Table 3.2.1 Historical Map Review

SITE HISTORY			
Date(s)	Scale	On-Site	Off-Site
1869 1866	1:10,560 1:2,500 1:2,500	Probably 3no.residential buildings fronting High Street with gardens extending to present day west boundary of Site. Boundary of Site bisects northern most garden. South of site is probably the garden of property to located to south east corner of Site or a commercial use.	Properties opposite side of High Street. No development to west of Site. Except 2 small buildings. House and gardens to the south.
1896	1:10,560 1:2,500	Development of housing with large building (subdivided) extending back over former garden.	By 1896 green houses built to west with small gravel pit beyond adjacent to railway cutting. Development has occurred along the south boundary of the Site. A Smithy is shown to the east of the Site.
1898-1899	1:10,560	No significant changes	No significant changes
1915	1:10,560	No significant changes	Nursery has expanded to the west and north west.
1920	1:10,560	No significant changes	No significant changes
1932-1935	1:10,560	No significant changes	Public House to east of Site.
1938 -1968	1:10,560	No significant changes	No significant changes
1959-1961 1960 - 68	1:1,250 1:10,000	Northern half of Site is called Builder's Yard. The Southern half is called Works which appear to extend to the south of the Site.	Nursery buildings have gone and what appears to be St Clare's Business Estate has been constructed to south west of Site. Area closest to the railway is called Builder's Yard.

1975-1976	1:10,000	Building in centre of Site has gone and a new building in the north east corner has appeared.	Further infill development to south of the Site and this has become a Depot.
1985	1:10,000	Studio building has appeared in south west quadrant of Site.	No significant changes
1991 and 1993-1994 1999-	1:1,250 10k Raster Mapping 1:10,000	Present day developments shown.	No significant changes
2006	10k Raster Mapping 1:10,000	No significant changes	No significant changes
2016	10k Raster Mapping 1:10,000	No significant changes	No significant changes

3.3 Environmental Data Research

The Envirocheck report identifies registered Local Authority and Environment Agency sites with licenses /permits, enforcement and prohibition notices, Local Authority Pollution Prevention and Controls Enforcements, pollution incidents to controlled waters, prosecutions relating to controlled waters, prosecutions relating to authorised processes and substantiated pollution incident register entries.

The key findings of the searches are summarised and presented below.

Table 3.3.1 Key Findings Database Records

DATABASE RECORDS		
Geological Setting	Made Ground/Artificial Geology	A thin veneer of Made Ground is expected related to previous development of the Site. Excavations on the adjacent Site indicate similar conditions.
	Superficial Deposits	With reference to the Envirocheck report superficial deposits of Taplow Gravel Formation (Sands and Gravels) underlie the whole Site to a depth of at least 8m.
	Solid Geology	The Bedrock is London Clay Formation.
BGS Historical Borehole Records	There are no records sufficiently close to the Site as to be relevant.	
Hydrology and Flooding	The nearest surface water course is the Longford River (Secondary River) 200m away at its closest point and which flows to the south towards the Thames. The GQA Grade is River Quality B.	
	The Site is <u>not shown</u> to be affected by Flooding from Rivers or Sea.	

	The Site is <u>not shown</u> to be affected by surface water flooding. Although BGS list the Site due its basement to present a risk of groundwater flooding.
Hydrogeology	<p><u>Aquifer Designations:</u></p> <ul style="list-style-type: none"> • Superficial Deposits (alluvium): Principal Aquifer • Bedrock (Mudstone): Unproductive Strata <p><u>Groundwater Vulnerability:</u></p> <ul style="list-style-type: none"> • Major Aquifer - High leaching potential <p><u>Source Protection Zones</u></p> <ul style="list-style-type: none"> • The Site is not in a SPZ.
Sensitive Land Uses	Bushy Park is located 50m to the east of the Site and is listed as a Site of Special Scientific Interest.
Mining	No Coal Authority Report required.
Unexploded Ordnance	Where significant piling or other intrusive ground works are planned consideration could be given to assessing the risk of UXO in more detail through detailed desk studies undertaken by a specialist in UXO risk assessment.
Geotechnical Risks	The site is not located in an area affected by coal mining or unstable ground. Groundwater levels are not thought to be high due to the elevation of the Site. The railway cutting to the west will also tend to lower groundwater levels in proximity to the Site.
BGS Recorded Mineral Sites	None recorded.
Pollution Incidents	There are no recorded incidents within 500m of the Site.
Local authority Pollution Prevention Controls and Integrated Pollution Prevention Controls	There are 2 entries close to the Site. Regal Dry Cleaners located 155 m NE. Hampton Hill Service Station 224m NE of the Site.
Licensed Industrial Activity (Contemporary Trade Directory)	<p>There are 3 no. Contemporary Trade Directory Entries within 100m of the site. The majority relate to the businesses at St Clare's Business Park, Windmill Road and High Street. Potentially contaminative businesses include garages, printers and dry cleaners. These land-uses are only likely to affect the Site if groundwater has become contaminated and migrated beneath the Site. The PCSM will consider these off-Site potential sources.</p> <p>There are multiple entries for a PFS located approximately 240m to the NE of the Site at 68-78 High Street.</p>
Hazardous Substances	None recorded.
Landfills and Waste Management	There is Commercial Waste Processing Site located 348m NE of the Site.

Water Abstractions and Discharge Consents	There are no abstractions within 500m of the Site.
Radon Gas	The Site is not located in a Radon Affected Area. Less than 1% of homes are above the action level.

4. QUALITATIVE CONTAMINATED LAND ASSESSMENT

4.1 Initial Conceptual Site Model

An initial Conceptual Site Model (CSM) has been developed for the Site adopting the Source-Pathway-Receptor approach. The initial CSM is developed during the preliminary risk assessment stage and is used to design the Phase 2 Intrusive Investigations.

- **Sources (S)** are potential or known contaminant sources e.g. soil contamination resulting from a former land use;
- **Pathways (P)** are environmental systems thorough which a contaminant could migrate e.g. air, groundwater;
- **Receptors (R)** are sensitive environmental receptors that could be adversely affected by a contaminant. e.g. Human Site occupiers, surface or groundwater resources and ecology.

Where a source, relevant pathway and receptor are present, a plausible pollutant linkage is considered to exist whereby environmental harm could occur and a potential environmental liability could be realised.

The potential pollutant linkages considered to exist at this Site are summarised below.

Sources

- S1:** Potential for asbestos containing materials (ACMs) present in existing buildings and made ground soils;
- S2:** Contamination of soils from previous historical contaminative uses of the Site;
- S3:** Potential for on-Site groundwater contamination resulting from previous contaminative Site use;
- S4:** Potential for hazardous ground gas; and
- S5:** Potential for off-Site sources of groundwater contamination.

Pathways

- P1:** Human uptake pathways;
 - Ingestion of excavated or exposed soils;
 - Inhalation of soil/dust/volatile compounds or hazardous ground gases via migration through permeable strata/conduits; and
 - Dermal contact with exposed soils or leachates.
- P2:** Horizontal and vertical migration of contaminants through the unsaturated zone;
- P3:** Horizontal and vertical migration of contaminants within groundwater;
- P4:** Direct contact of soils with construction materials.

Receptors

- R1:** Construction/maintenance workers/end users;
- R2:** Controlled waters (groundwater within Principal Aquifer);
- R3:** Ecological receptors;
- R4:** Construction Materials - Buried concrete and potable water supply pipes;
- R5:** Buildings - Hazardous ground gas accumulation and explosion.

4.2 Risk Evaluation

For each potential pollutant linkage identified the potential risk has been evaluated for potential receptors using a Preliminary Qualitative Risk Assessment based on the probability of the pollution event, and the severity it poses to site users and the environment.

The assessment is presented in Table 4.2.1 below.

Table 4.2.1 Preliminary Qualitative Risk Assessment

Potential Source	Potential Receptor	Potential Pathway	Consequence	Probability	Risk	Comments
S1: Potential for asbestos containing materials (ACMs) present in existing buildings and made ground	R1: Construction/ maintenance workers/end users	P1: Human uptake pathways (inhalation of fibres).	Medium	Low likelihood	Low	There is a potential for asbestos to be present within buildings at the site and within the made ground. Inspection of existing asbestos register, if present or appropriate asbestos inspections of buildings prior to refurbishment followed by appropriate removal will mitigate risks. As a precautionary measure, asbestos screening of soils during Phase 2 Intrusive Investigations will be undertaken.
S2: Potential for contamination within any made ground at the site.	R1: Construction/ maintenance workers/end users.	P1: Human uptake pathways (inhalation, dermal, ingestion).	Medium	Low likelihood	Low/Very Low	Phase 2 Intrusive Site investigation works with appropriate testing will assess the presence and concentration of contamination in made ground. This will inform risk based assessment of contamination. The overall risk to human health is considered likely to be low as the existing buildings and infrastructure are anticipated to remain in-situ.
S3: Potential for on-Site groundwater contamination resulting from previous contaminative Site use	R2: Controlled waters (groundwater beneath the site) R4: Construction Materials - Buried concrete and potable water supply pipes.	P2: Horizontal and vertical migration of contaminants through the unsaturated zone. P3: Horizontal and vertical migration of contaminants within groundwater.	Medium	Low likelihood	Moderate/Low	Groundwater is thought to be located at the boundary between the Taplow Gravels and the London Clay at approximately 8m bgl. There is likely to be a thick unsaturated zone but mobile contaminants can migrate vertically relatively quickly.
S4: Potential off-site sources of hazardous ground gas.	R1: Construction/ maintenance workers/end users.	P1: Human uptake pathways (inhalation).	Medium	Low likelihood	Moderate/Low	There are no landfills close to the Site or natural Peat or other organic soils with the potential to generate ground gases.

	R5: Buildings - Hazardous ground gas accumulation and explosion.	P2: Horizontal and vertical migration of contaminants through the unsaturated zone;				Degradation of hydrocarbons may lead to the generation of hazardous ground gases, which will be assessed as part of the Phase 2 investigation.
S5: Potential for groundwater contamination from off-Site sources	R1: Construction/ maintenance workers/end users. R2: Controlled waters (groundwater with Secondary Principal Aquifer); R4: Construction Materials - Buried concrete and potable water supply pipes.	P1: Human uptake pathways (ingestion, dermal contact). P3: Horizontal and vertical migration of contaminants within groundwater.	Medium	Low likelihood	Moderate/Low	There are a number of adjacent historical and on-going potentially contaminative Site uses that could have led to groundwater contamination.

5. PRELIMINARY ENGINEERING ASSESSMENT

At the time of writing, the proposed development includes the refurbishment and redevelopment of the existing buildings. Therefore it is considered unlikely for any extensive groundworks to be undertaken as part of the development.

However, the Taplow Gravels are unlikely to remain stable in any open excavations and groundwater is expected to be encountered at around 8m or shallower below ground level. Provision will need to be made to support any open excavations and dewatering may be required.

Building Control hold no records of the foundations of the buildings on Site. Buildings at St Clare's Business Park are thought to have adopted strip foundations.

There are no known incidences of ground instability or high groundwater in the area of the Site.

It is noted that the existing basement at the Site is dry and contains no groundwater sump or pump. The lift shaft base was also dry.

6. DISCUSSION OF FINDINGS AND RECOMMENDATIONS

6.1 Conclusions

This Report has been prepared to consider the potential risks from contamination at the Site from on and off Site Sources and whether these Sources could represent a risk to human health, controlled waters or the wider environment. It is intended that this Report be submitted to the local authority as part of the planning application associated with the redevelopment of the site at 63-71 High Street, Hampton Hill, TW12 1NH.

The CSM and preliminary qualitative risk assessment presented in this Report, at Table 4.2.1 have identified potential sources, pathways and receptors which are considered to represent a significant potential risk to identified site receptors. The primary potential source of contamination is the made ground at the site and from groundwater contamination resulting from previous and existing potentially contaminative use of the site and its environs. The underlying geology, Taplow Gravels, is a Principal Aquifer and the assessment of contamination risk to groundwater is an important consideration for this site.

The previous historical developments and the more recent developments all present the possibility of Asbestos Containing Materials (ACM) being present in the buildings and/or the made ground soils.

6.2 Proposals for Phase 2 Site Investigations

At the time of writing this report, the proposed development will convert the existing buildings from offices into residential apartments, with the improvement and reinstatement of existing hard standing to include areas of carparking and access from High Street. However, a limited site investigation is recommended to assess potential levels of contamination within the soils and enable assessment of ground gas and groundwater, where appropriate.

It is proposed that the site investigation will include the advancement of 2 no. cable percussion boreholes to depths of approximately 15m bgl and installation with monitoring wells to facilitate the monitoring for hazardous ground gases and groundwater.

Up to 6 trial pits will be excavated in order to obtain samples of near surface soils for geochemical and geotechnical analysis.

Based on guidance in accordance with BS8485: 2015, it is recommended that ground gas monitoring be undertaken on a minimum of 4no. occasions for concentrations of methane, carbon dioxide and oxygen. The results coupled with information confirming the physical characteristics of the ground will enable the classification of the ground gas regime at the site to take place followed by the design of mitigation measures, if required, in accordance with BS8485 2015 and following the guidance contained in CIRIA C665. Groundwater, if encountered, will be sampled and tested for a broad suite of analyses to inform human health protection of construction workers and end users of the site and also consider risks to the Principal Aquifer.

A Phase 2 Geoenvironmental Assessment Report will be produced including risk based assessment of contamination as it relates to the proposed development.

It is recommended that a pre-demolition or refurbishment asbestos survey of existing properties be undertaken.

7. LIMITATIONS

The locations of the exploratory holes will be influenced by the proximity to buried services and other existing infrastructure.

Any other issues not listed in the scope of works, but subsequently identified during the completion of the investigations and reported herein (such as the potential presence of Japanese knotweed, flood assessment studies or ecological surveys) are provided for information only and fall outside the scope of this Assessment. The Report does not therefore constitute an archaeological or ecological assessment, nor does it constitute an asbestos inspection or flood assessment.

The Consultant's conclusions, opinions and recommendations are based upon this information and the information obtained during the investigation. There is no warranty regarding the accuracy of the information provided to the Consultant and they will not be responsible for any opinions that have been expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

Appendix 1

Historical Mapping

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	-285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Coppice		Bracken
	Heath		Rough Grassland
	Marsh		Reeds
	Saltings		
	Building		Glasshouse
	Sloping Masonry		Pylon
	Electricity Transmission Line		Pole
	Cutting		Embankment
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		
	Administrative County, County Borough or County of City		
	Municipal Borough, Urban or Rural District, Burgh or District Council		
	Borough, Burgh or County Constituency Shown only when not coincident with other boundaries		
	Civil Parish Shown alternately when coincidence of boundaries occurs		
	BP, BS Boundary Post or Stone		Pol Sta Police Station
	Ch Church		PO Post Office
	CH Club House		PC Public Convenience
	F E Sta Fire Engine Station		PH Public House
	FB Foot Bridge		SB Signal Box
	Fn Fountain		Spr Spring
	GP Guide Post		TCB Telephone Call Box
	MP Mile Post		TCP Telephone Call Post
	MS Mile Stone		W Well

1:10,000 Raster Mapping

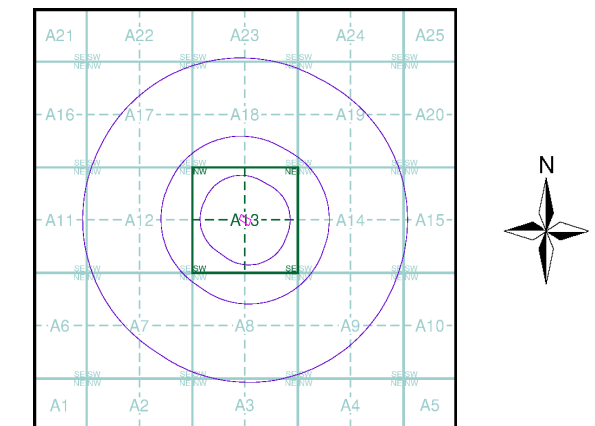
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	MHW(S) Mean high water (springs)		MLW(S) Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:10,560	1869	3
Surrey	1:10,560	1871	4
London	1:10,560	1896	5
Middlesex	1:10,560	1897	6
Surrey	1:10,560	1898 - 1899	7
Middlesex	1:10,560	1920	8
Middlesex	1:10,560	1920	9
Surrey	1:10,560	1920	10
Surrey	1:10,560	1920	11
Middlesex	1:10,560	1932 - 1935	12
Surrey	1:10,560	1933	13
Middlesex	1:10,560	1934	14
Surrey	1:10,560	1938	15
Middlesex	1:10,560	1938	16
Middlesex	1:10,560	1938	17
Surrey	1:10,560	1938	18
Ordnance Survey Plan	1:10,000	1940	19
Historical Aerial Photography	1:10,560	1948	20
Ordnance Survey Plan	1:10,000	1960 - 1966	21
Ordnance Survey Plan	1:10,000	1965 - 1968	22
Ordnance Survey Plan	1:10,000	1975 - 1976	23
Ordnance Survey Plan	1:10,000	1985 - 1987	24
London	1:25,000	1985	25
Ordnance Survey Plan	1:10,000	1991 - 1992	26
10K Raster Mapping	1:10,000	1999	27
Historical Aerial Photography	1:10,000	1999	28
10K Raster Mapping	1:10,000	2006	29
VectorMap Local	1:10,000	2016	30

Historical Map - Slice A



Order Details

Order Number: 85332498_1_1
 Customer Ref: SL05030
 National Grid Reference: 514240, 170830
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details

Flat, 64 High Street, Hampton Hill, HAMPTON, Middlesex, TW12 1PD



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings

Military and Industrial Buildings

Military and Communication Areas

Subway Entrance

Fireproof Building

Prominent Fireproof Building

Non-fireproof Building

Non-fireproof Building (non-dwelling)

Factory, mill, and flour mill, with chimneys

Factory, mill, and flour mill, without chimneys

Power Station, drawn to scale

Hydroelectric Power Station

Radio Station, drawn to scale

Telephone Station, drawn to scale

Abandoned Open-pit Mine or Quarry

Open-pit Salt Mine

Pit

Oil Deposit or Well

Oil Seepage

Tailings Pile

Fuel Storage Tanks

Natural Gas Tank

Bench Mark

Drill Hole

Burial Mound

Triangulation Point on Burial Mound

Fill

Cut

Small Bridge

Tunnel

Pipe (Culvert)

Single-track Railroad

Double-track Railroad and Station Building

Coniferous Forest

Deciduous Forest

Mixed Forest

Lawns

Citrus Orchard

Wet Ground

Scattered Vegetation

243.8 Values for prominent elevations

186.0 Numbers for spot elevations, depth soundings, contour lines, etc.

0.2 Velocity of the current, width of river bed, depth of river

Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

Russian Alphabet (For reference and phonetic interpretation of map text)

А а (A)	З з (Z)	П п (P)	Ч ч (CH)
Б б (B)	И и (I)	Р р (R)	Ш ш (SH)
В в (V)	Й й (Y)	С с (S)	Щ щ (SHCH)
Г г (G)	К к (K)	Т т (T)	Ъ (-)
Д д (D)	Л л (L)	У у (U)	Ы (Y)
Е е (E)	М м (M)	Ф ф (F)	Ь (')
Ё ё (YO)	Н н (N)	Х х (KH)	Э э (E)
Ж ж (ZH)	О о (O)	Ц ц (TS)	Ю ю (YU or IU)
			Я я (YA or IA)

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings

Military and Industrial Buildings

Military and Communication Areas

Subway Entrance

Partly Demolished Buildings

Demolished Buildings

Built-Up Area with Fireproof Buildings Predominant

Built-Up Area with Non-Fireproof Buildings Predominant

Individual Fireproof Building

Prominent Industrial Building

Individual Dwelling, Fireproof

Ruins of an Individual Dwelling

Factory or Mill Chimney

Factory or Mill with Chimney

Factory or Mill without Chimney

Mine or Open Pit Mine

Operating Shaft or Mine

Non-Operating Shaft or Mine

Salt Mine

Tailings Pile

Pit

Stone Quarry

Gas Pump or Service Station

Fuel Storage or Natural Gas Tank

Oil or Natural Gas Derrick

Small Hydroelectric Power Station

Power Station

Transformer Station

Cemetery

Burial Mound (height in metres)

Triangulation Point on Burial Mound

Triangulation Point

Bench Mark

Bench Mark (monumented)

Telegraph Office

Telephone Station

Radio Station

Radio Tower

Airfield or Seaplane Base

Landing Strip

Cut

Fill

Km Post

Plantings

Width of Road

Steep Grade

Telegraph/Telephone Lines

Main Highway

Highway under Construction

Improved Dirt Road (former truck road)

Small Bridge

Pipe (Culvert)

Tunnel

Dismantled Railroad

Double-track Railroad with First Class Station

Railroad Under Construction

Shore Embankment

River or Ditch with Embankment

Direction and velocity of current

Water Gauge

Water Level Mark

Well

Water Reservoir or Rain Water Pit

Spring

Isobath with value

Heavy (Index) Contour Line

Contour Line and Value

Half Contour Line

Spot Elevation Value

Coniferous

Deciduous

Mixed

Scrub

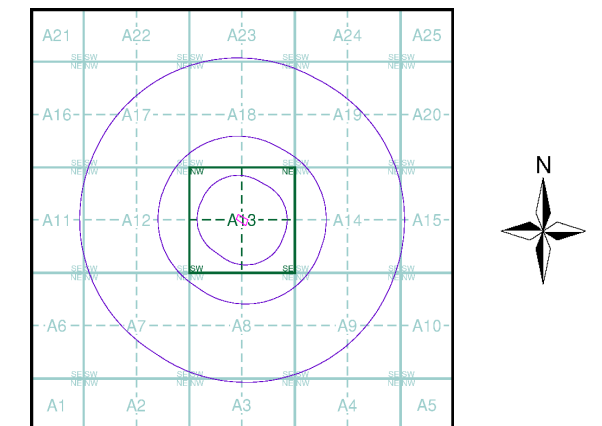
Key to Numbers on Mapping



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:10,560	1869	3
Surrey	1:10,560	1871	4
London	1:10,560	1896	5
Middlesex	1:10,560	1897	6
Surrey	1:10,560	1898 - 1899	7
Middlesex	1:10,560	1920	8
Middlesex	1:10,560	1920	9
Surrey	1:10,560	1920	10
Surrey	1:10,560	1920	11
Middlesex	1:10,560	1932 - 1935	12
Surrey	1:10,560	1933	13
Middlesex	1:10,560	1934	14
Surrey	1:10,560	1938	15
Middlesex	1:10,560	1938	16
Middlesex	1:10,560	1938	17
Surrey	1:10,560	1938	18
Ordnance Survey Plan	1:10,000	1940	19
Historical Aerial Photography	1:10,560	1948	20
Ordnance Survey Plan	1:10,000	1960 - 1966	21
Ordnance Survey Plan	1:10,000	1965 - 1968	22
Ordnance Survey Plan	1:10,000	1975 - 1976	23
Ordnance Survey Plan	1:10,000	1985 - 1987	24
London	1:25,000	1985	25
Ordnance Survey Plan	1:10,000	1991 - 1992	26
10K Raster Mapping	1:10,000	1999	27
Historical Aerial Photography	1:10,000	1999	28
10K Raster Mapping	1:10,000	2006	29
VectorMap Local	1:10,000	2016	30

Russian Map - Slice A



Order Details

Order Number: 85332498_1_1
 Customer Ref: SL05030
 National Grid Reference: 514240, 170830
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details

Flat, 64 High Street, Hampton Hill, HAMPTON, Middlesex, TW12 1PD



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Middlesex

Published 1869

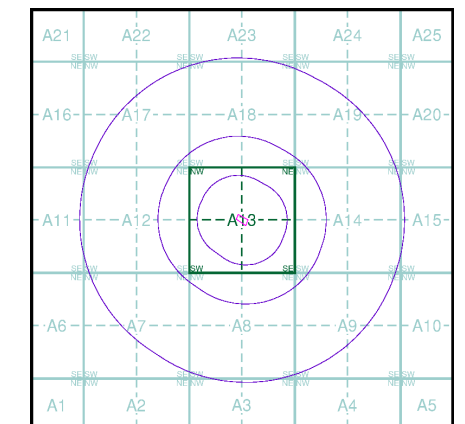
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

02000	1869	1:10,560
02500	1869	1:10,560

Historical Map - Slice A

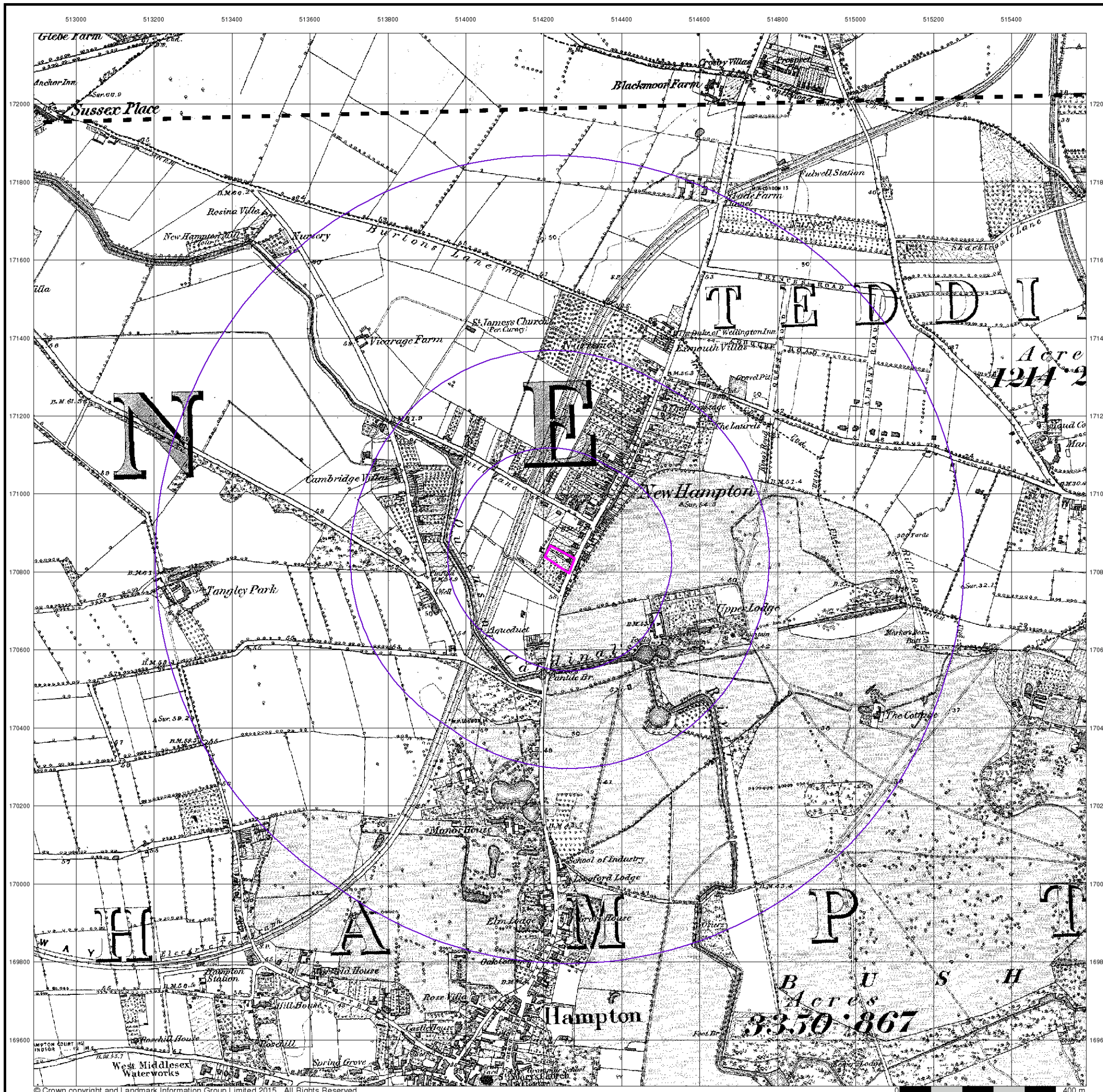


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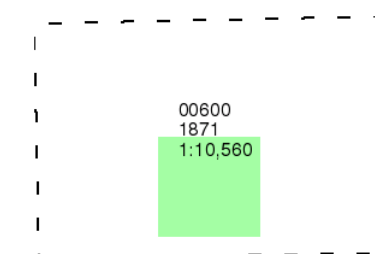
Surrey

Published 1871

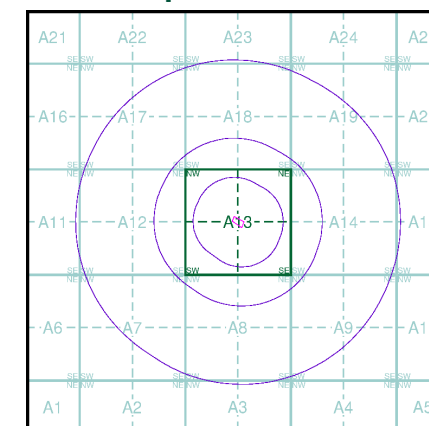
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A

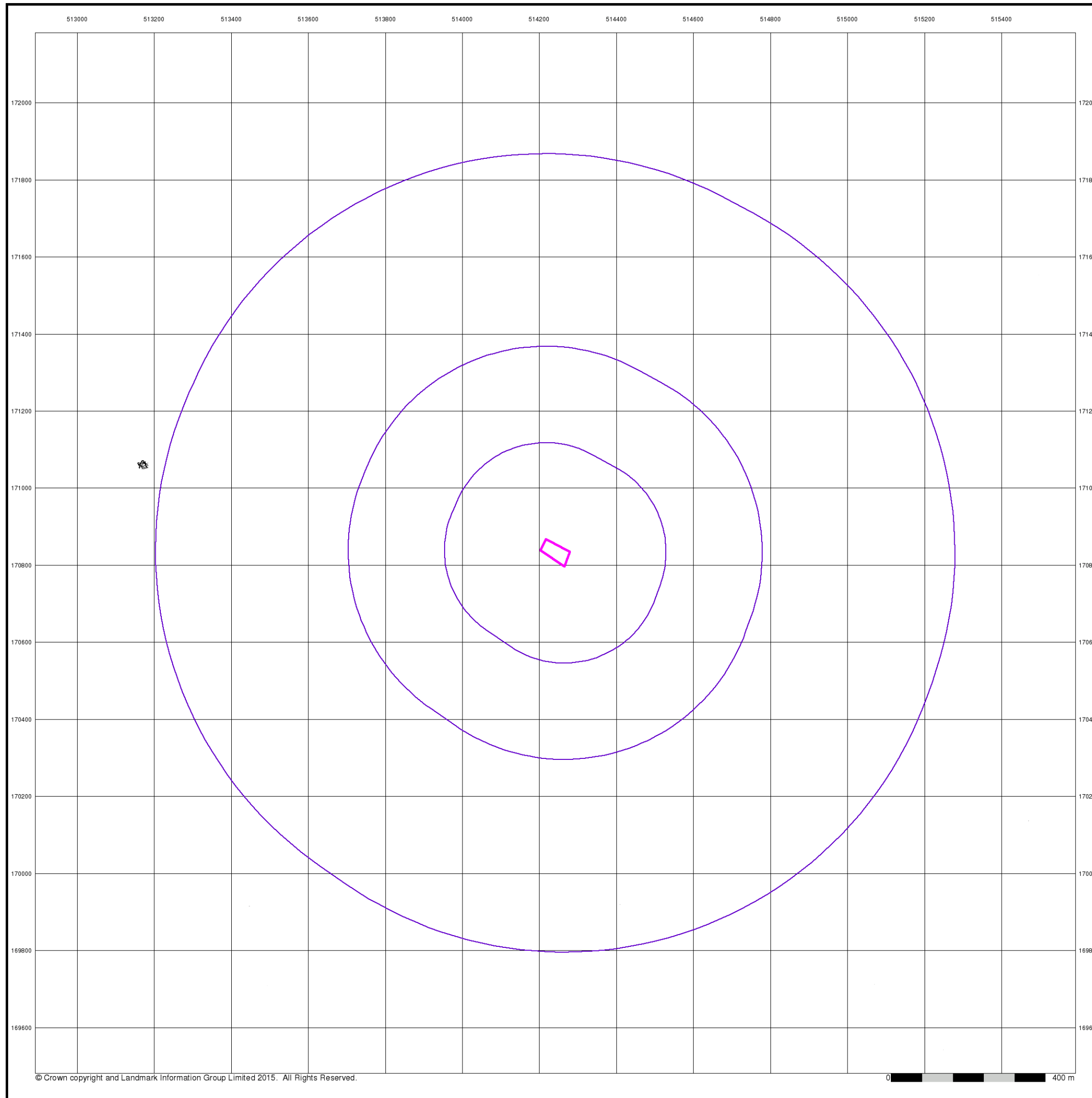


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Site Details

Flat, 64 High Street, Hampton Hill, HAMPTON, Middlesex, TW12 1PD



London

Published 1896

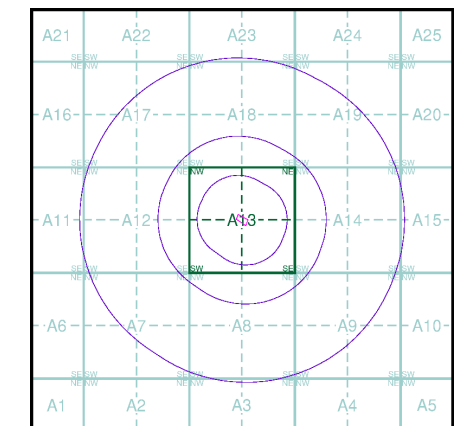
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

009SE	1896	1:10,560
013NE	1896	1:10,560

Historical Map - Slice A

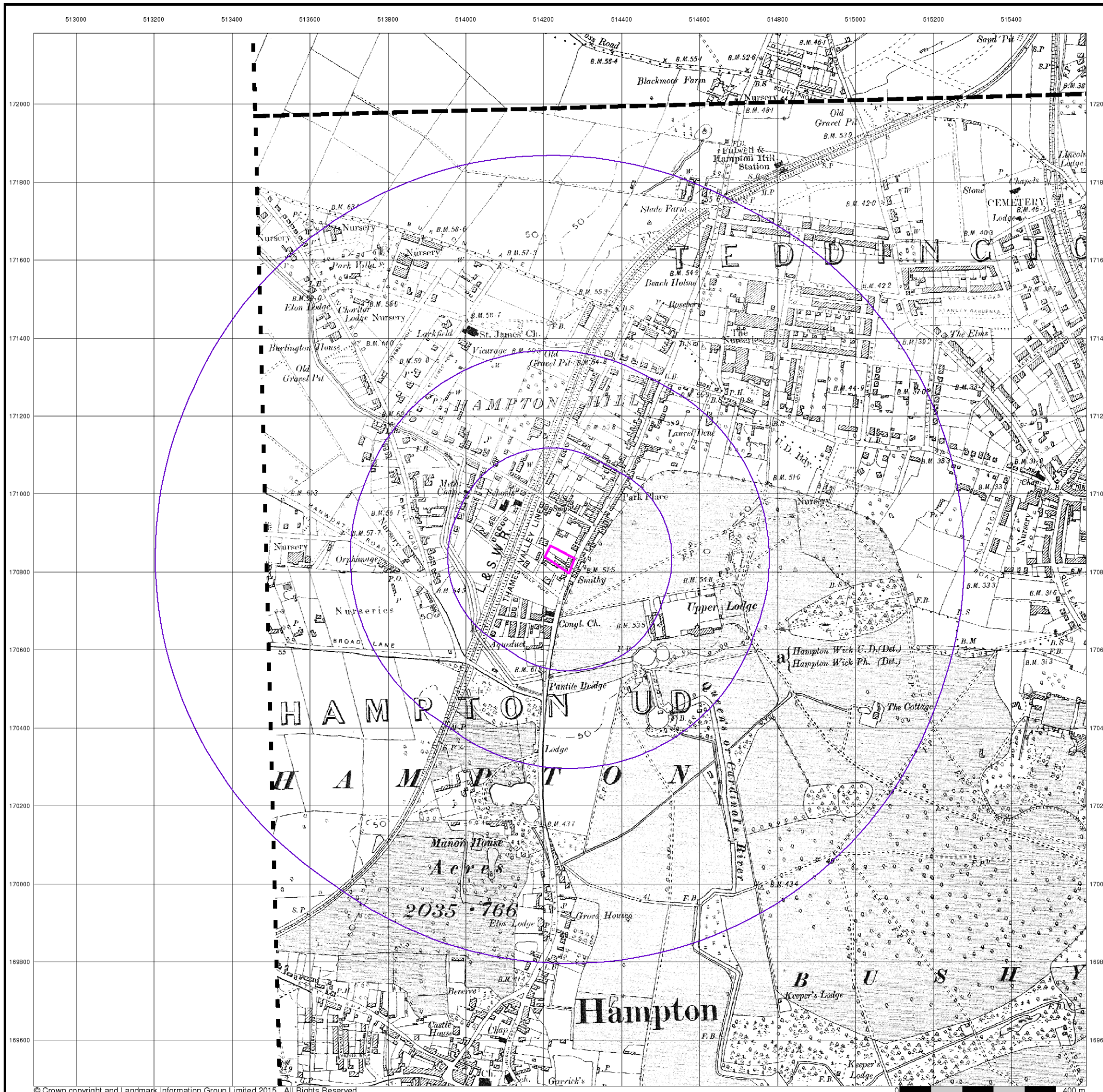


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Middlesex

Published 1897

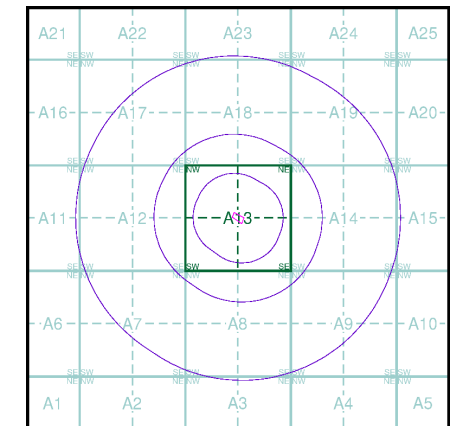
Source map scale - 1:10,560

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Map Name(s) and Date(s)

020SW	1897	1:10,560
025NW	1897	1:10,560

Historical Map - Slice A

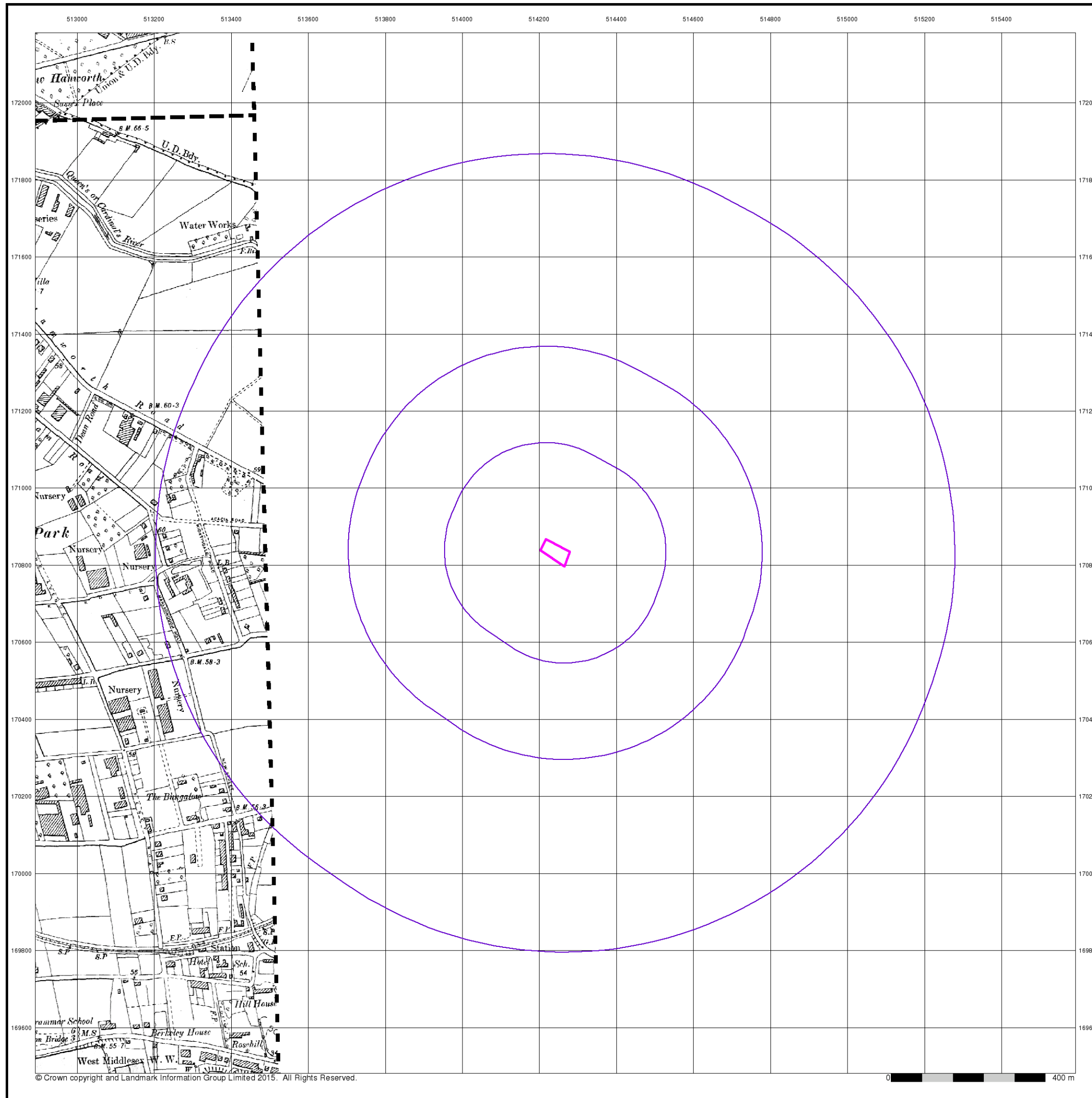


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Surrey

Published 1898 - 1899

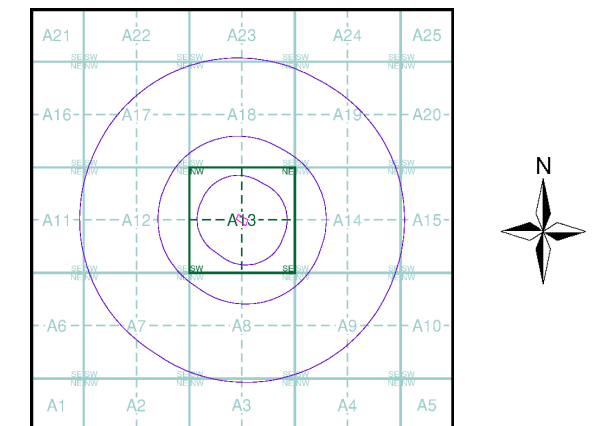
Source map scale - 1:10,560

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Map Name(s) and Date(s)

006NE	1898	1:10,560
006SW	1899	1:10,560
006SE	1899	1:10,560

Historical Map - Slice A

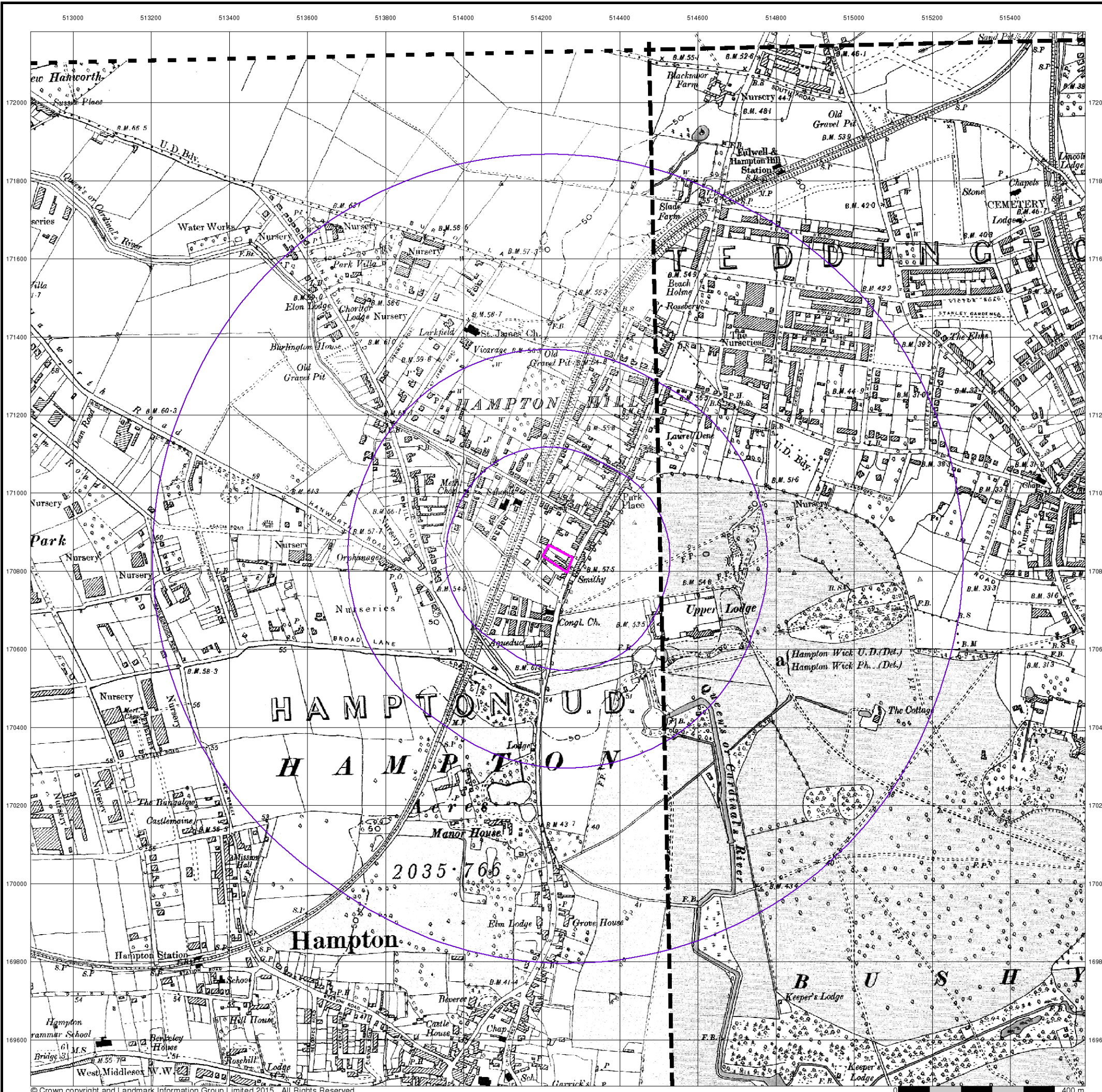


Order Details

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Site Details

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Middlesex

Published 1920

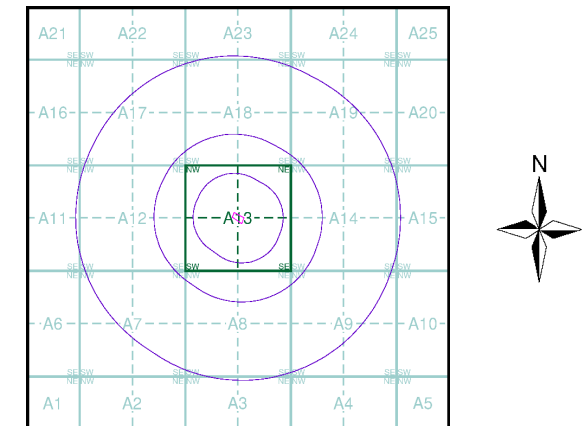
Source map scale - 1:10,560

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Map Name(s) and Date(s)

020SW 1920 1:10,560	020SE 1920 1:10,560
025NW 1920 1:10,560	025NE 1920 1:10,560

Historical Map - Slice A

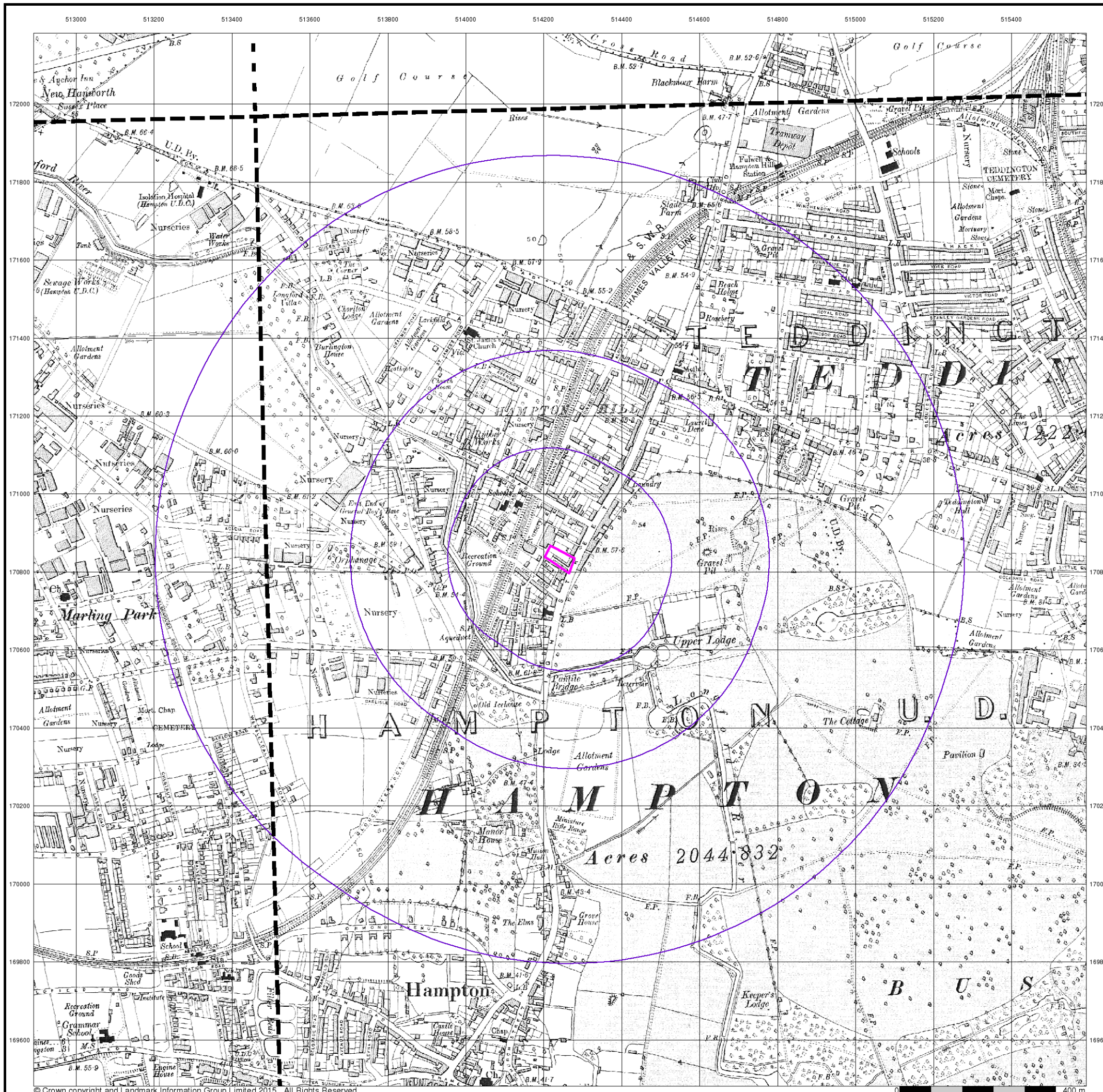


Order Details

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Middlesex

Published 1920

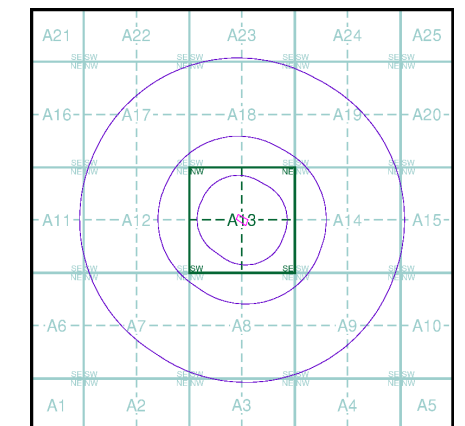
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Map Name(s) and Date(s)

020SW 1920 1:10,560	025NE 1920 1:10,560
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Historical Map - Slice A



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